

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-6. (Cancelled).

7. (Currently Amended) A method for allowing a client application to establish, in a client network, a first connection ~~having at~~ a first security level with a first port of a server application hosted in a server machine linked to a server network, in order to send messages addressed to the server machine, said messages passing from the client network to the server network through a network layer (CR) of a gateway machine, the method comprising:

creating a second port in the gateway machine;

rerouting to the second port of the gateway machine, by ordering the network layer (CR) of the gateway machine, any message sent from the client network and addressed to the first port of the server machine, followed by deleting, by ordering the network layer (CR) of the gateway machine, any message sent from the client network to a third port located in the server machine regardless of a security level of said message sent to the third port;

receiving at the second port of the gateway machine a request addressed to the first port of the server application to establish said first connection with the first port of the server application;

listening to the second port of the gateway machine to detect the request addressed to the first port of the server application to establish said first connection with the first port of the server application; and

generating, in the gateway machine, a thread which establishes said first connection and a second connection at a second security level between the gateway machine and the third port;

wherein said generating is performed in response to the detection of the request addressed to the first port of the server application to establish said first connection, and said third port is configured to receive at least one message at the second security level from the gateway machine via said second connection.

8. (Currently Amended) A method according to claim 7, wherein said thread:  
establishes, in a first phase, said first connection ~~in a first phase with~~ at the first security level in a first interface associated with the second port and with said request;

establishes, in a second phase, ~~a~~ said second connection ~~with~~ at the second security level ~~of security~~ in a second interface to the third port in the server machine;

writes, in a third phase, ~~with~~ at the second security level in the second interface, any message read in the first interface ~~with~~ at the first security level ~~in a third phase,~~ and

writes, in a fourth phase, ~~with~~ at the first security level in the first interface, any message read in the second interface ~~with~~ at the second security level ~~in a fourth phase.~~

Claim 9. (Cancelled).

10. (Previously Presented) A method according to claim 7, wherein said creating and rerouting are executed automatically by a first process of the gateway machine, and said first process generates a second process that executes said listening and generating.

11. (Previously Presented) A method according to claim 8, wherein said creating and rerouting are executed automatically by a first process of the gateway machine, and said first process generates a second process that executes said listening and generating.

12. (Previously Presented) A method according to claim 7, further comprising:  
automatically executing said creating, rerouting, and deleting, by a first process of the gateway machine; and  
generating, by said first process, a second process that executes said listening and said generating.

Claim 13. (Cancelled).

14. (Currently Amended) A method for allowing a client application to establish, in a client network, a first connection ~~having at~~ a first security level with a first port of a server application hosted in a server machine linked to a server network, in order to send messages addressed to the server machine, said messages passing from the client network to the server network through a network layer (CR) of a gateway machine, the method comprising:

generating, in the gateway machine, a thread which establishes said first connection; and

activating, in the gateway machine, a secure application proxy that reroutes the messages addressed to the first port of the server application away from the first connection, in a way that is transparent to the client application, so as to establish a second connection ~~having at~~ a second security level ~~with~~ between a second port of the server application and the gateway machine, and that deletes, by ordering the network

layer (CR) of the gateway machine, any message sent from the client network to a the second port of the server application regardless of a security level of said message sent to the second port;

wherein said generating is performed in response to the detection of the request addressed to the first port of the server application to establish said first connection, said second port is configured to receive at least one message at a second security level from the gateway machine via said second connection, and

wherein said second connection is unknown to said client application[[:]].

Claims 15-17. (Cancelled).

18. (New) A method according to claim 7, wherein said first security level is different than said second security level.

19. (New) A method according to claim 14, wherein said first security level is different than said second security level.